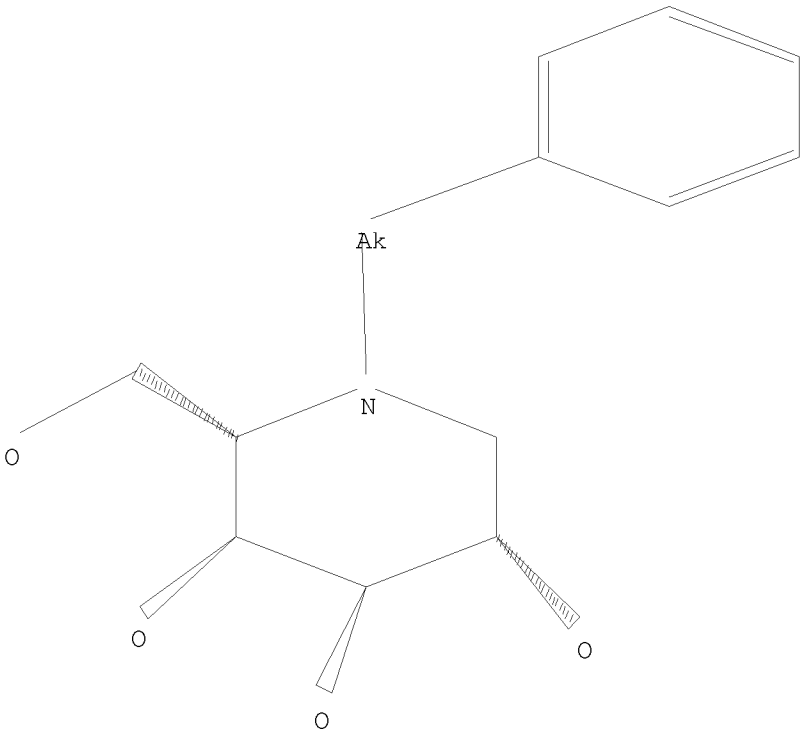

Structure attributes must be viewed using STN Express query preparation.

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=> s l16 sss sam
SAMPLE SEARCH INITIATED 16:45:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      754 TO ITERATE

100.0% PROCESSED      754 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        13433 TO    16727
PROJECTED ANSWERS:               0 TO        0

L17           0 SEA SSS SAM L16

=> s l16 sss full
FULL SEARCH INITIATED 16:45:48 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    15265 TO ITERATE

100.0% PROCESSED    15265 ITERATIONS                              30 ANSWERS
SEARCH TIME: 00.00.02

L18          30 SEA SSS FUL L16

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   191.54     976.73
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -1.70

FILE 'CAPLUS' ENTERED AT 16:45:59 ON 02 APR 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 2 Apr 2010 VOL 152 ISS 15
FILE LAST UPDATED: 1 Apr 2010 (20100401/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l18
L19 13 L18

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):y

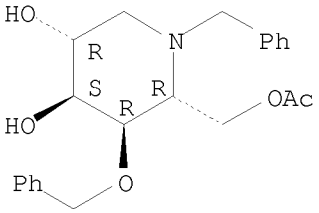
L19 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:1502110 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 152:97713
TITLE: An Oxidation and Ring Contraction Approach to the Synthesis of (±)-1-Deoxynojirimycin and (±)-1-Deoxyaltronojirimycin
AUTHOR(S): Bagal, Sharan K.; Davies, Stephen G.; Lee, James A.; Roberts, Paul M.; Russell, Angela J.; Scott, Philip M.; Thomson, James E.
CORPORATE SOURCE: Department of Chemistry, Chemistry Research Laboratory, University of Oxford, Oxford, OX1 3TA, UK
SOURCE: Organic Letters (2009), 12(1), 136-139
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A reaction sequence involving the chemoselective olefinic oxidation of N(1)-benzyl-2,7-dihydro-1H-azepine with m-CPBA in the presence of HBF4 and BnOH followed by ring contraction facilitates the stereoselective preparation of either of the epoxide diastereoisomers of

(2RS,3SR)-N(1)-benzyl-2-chloromethyl-3-benzyloxy-4,5-epoxypiperidine by simple modification of the reaction conditions. Epoxide ring opening, functional group interconversion, and deprotection allow the synthesis of (±)-1-deoxynojirimycin and (±)-1-deoxyaltronojirimycin.

IT 1202170-20-4P 1202170-24-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidation and ring contraction approach to synthesis of (±)-1-deoxynojirimycin and (±)-1-deoxyaltronojirimycin)

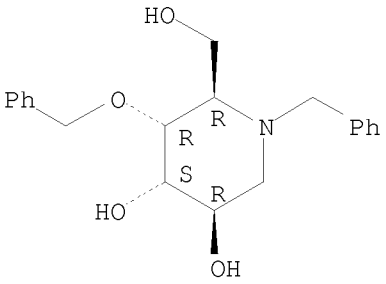
RN 1202170-20-4 CAPLUS
CN 3,4-Piperidinediol, 6-[(acetyloxy)methyl]-5-(phenylmethoxy)-1-(phenylmethyl)-, (3R,4S,5R,6R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 1202170-24-8 CAPLUS
CN 3,4-Piperidinediol, 6-(hydroxymethyl)-5-(phenylmethoxy)-1-(phenylmethyl)-, (3R,4S,5R,6R)-rel- (CA INDEX NAME)

Relative stereochemistry.

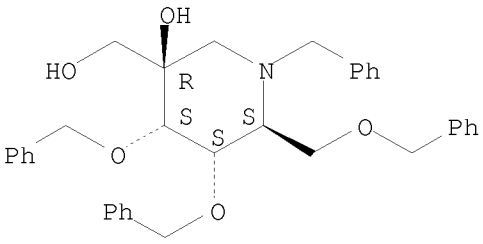


OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:507065 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 151:57064
TITLE: Facile Aza-Claisen Rearrangement of Glycals: Application in the Synthesis of 1-Deoxy-L-imino-sugars
AUTHOR(S): Gupta, Preeti; Vankar, Yashwant D.
CORPORATE SOURCE: Department of Chemistry, Indian Institute of Technology, Kanpur, 208016, India
SOURCE: European Journal of Organic Chemistry (2009), (12), 1925-1933, S1925/1-S1925/38
CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 151:57064
AB 2-C-Methylene-N-glycosyl amides have been obtained from 2-(hydroxymethyl)glycals through a facile aza-Claisen rearrangement. This rearrangement has also been utilized in the synthesis of L-allo-deoxynojirimycin, a moderate inhibitor of human lysosomal α-mannosidase (IC50 = 64 μM), and two new C-5-(hydroxymethyl) analogs of L-altro-deoxynojirimycin and L-ido-deoxynojirimycin.(.COPYRGT. Wiley-VCH Verlag GmbH & Co. KGaA, 69451 Weinheim, Germany, 2009).
IT 1161011-53-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(facile aza-Claisen rearrangement of glycals in synthesis of 1-deoxy-L-imino-sugars as enzyme inhibitors)
RN 1161011-53-5 CAPLUS
CN 3-Piperidinemethanol, 3-hydroxy-4,5-bis(phenylmethoxy)-6-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, (3R,4S,5S,6S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

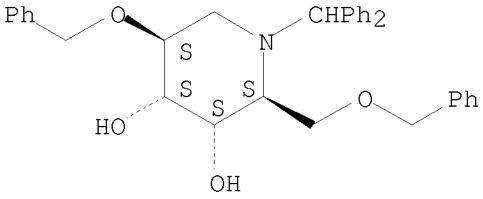


REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2008:1383655 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 149:575982
TITLE: Reductive aminations of carbonyl compounds with borohydride and borane reducing agents
AUTHOR(S): Baxter, Ellen W.; Reitz, Allen B.
CORPORATE SOURCE: The R. W. Johnson Pharmaceutical Research Institute, Spring House, PA, USA
SOURCE: Organic Reactions (Hoboken, NJ, United States) (2002), 59, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
OTHER SOURCE(S): CASREACT 149:575982
AB A review of the article Reductive aminations of carbonyl compds. with borohydride and borane reducing agents.
IT 188779-10-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(Reductive Aminations of Carbonyl Compds. with Borohydride and Borane Reducing Agents)
RN 188779-10-4 CAPLUS

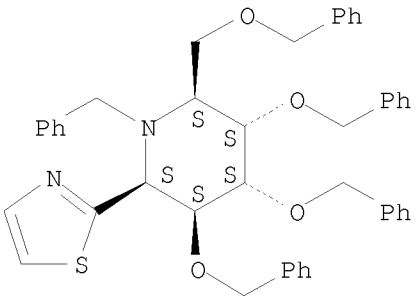
CN 3,4-Piperidinediol, 1-(diphenylmethyl)-5-(phenylmethoxy)-2-[(phenylmethoxy)methyl]-, (2S,3S,4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.



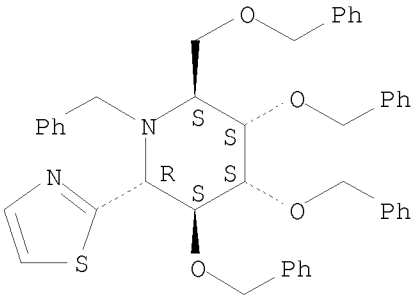
L19 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:908712 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 145:489467
TITLE: Access to Piperidine Imino-C-glycosides via Stereoselective Thiazole-Based Aminohomologation of Pyranoses
AUTHOR(S): Dondoni, Alessandro; Nuzzi, Andrea
CORPORATE SOURCE: Dipartimento di Chimica, Laboratorio di Chimica Organica, Universita di Ferrara, Ferrara, 44100, Italy
SOURCE: Journal of Organic Chemistry (2006), 71(20), 7574-7582
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:489467
AB The access to piperidine homoazasugars (dideoxyiminoheptitols) from pyranoses via formal one-carbon chain elongation and exchange of the ring oxygen with the NH group is described. The key process involves the stereoselective addition of 2-thiazolylmagnesium bromide to an N-glycosylhydroxylamine, i.e., a hidden open-chain sugar nitrone. The N-thiazolylalkylhydroxylamine formed in this way is reduced to amine, and this transformed into a substituted piperidine via intramol. cyclization by an SN2 process. Cleavage of the thiazole residue attached to C2 of the piperidine ring reveals the formyl group, and this is reduced to hydroxymethyl to give the target homoazasugar. A collection of six stereodiversified compds. with free OH and NH groups and isolated as hydrochlorides has been prepared
IT 914080-58-3P 914080-59-4P 914080-62-9P
914080-63-0P 914081-90-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of piperidine imino-C-glycosides via stereoselective addition of
2-thiazolylmagnesium bromide to an N-glycosylhydroxylamine as a key step)
RN 914080-58-3 CAPLUS
CN Piperidine, 3,4,5-tris(phenylmethoxy)-2-[(phenylmethoxy)methyl]-1-(phenylmethyl)-6-(2-thiazolyl)-, (2S,3S,4S,5S,6S)- (CA INDEX NAME)

Absolute stereochemistry.



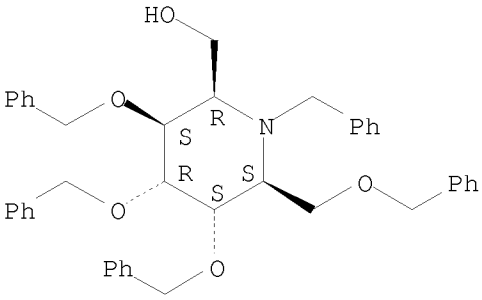
RN 914080-59-4 CAPLUS
CN Piperidine, 3,4,5-tris(phenylmethoxy)-2-[(phenylmethoxy)methyl]-1-(phenylmethyl)-6-(2-thiazolyl)-, (2S,3S,4S,5S,6R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



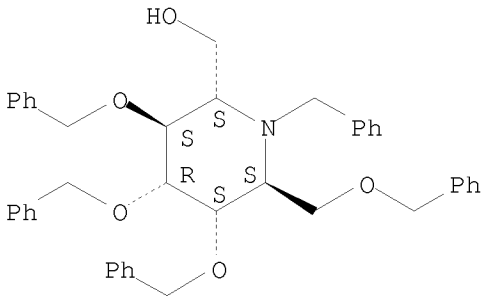
RN 914080-62-9 CAPLUS
CN 2-Piperidinemethanol, 3,4,5-tris(phenylmethoxy)-6-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, (2R,3S,4R,5S,6S)- (CA INDEX NAME)

Absolute stereochemistry.



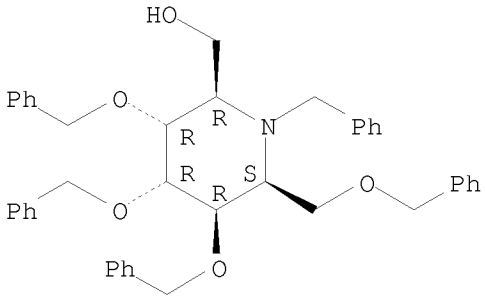
RN 914080-63-0 CAPLUS
CN 2-Piperidinemethanol, 3,4,5-tris(phenylmethoxy)-6-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, (2S,3S,4R,5S,6S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



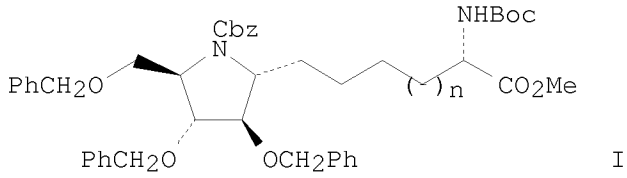
RN 914081-90-6 CAPLUS
CN 2-Piperidinemethanol, 3,4,5-tris(phenylmethoxy)-6-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, (2R,3R,4R,5R,6S)- (CA INDEX NAME)

Absolute stereochemistry.

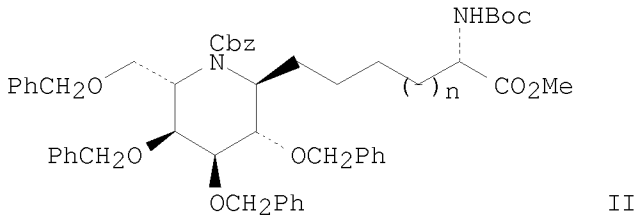


OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

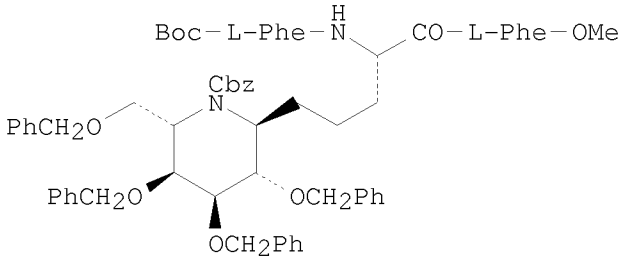
L19 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:466314 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 143:153676
TITLE: Cross-Metathesis of C-Allyl Iminosugars with Alkenyl Oxazolidines as a Key Step in the Synthesis of C-Iminoglycosyl α-Amino Acids. A Route to Iminosugar Containing C-Glycopeptides
AUTHOR(S): Dondoni, Alessandro; Giovannini, Pier Paolo; Perrone, Daniela
CORPORATE SOURCE: Dipartimento di Chimica, Laboratorio di Chimica Organica, Universita di Ferrara, Ferrara, 44100, Italy
SOURCE: Journal of Organic Chemistry (2005), 70(14), 5508-5518 CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:153676
GI



I



II



III

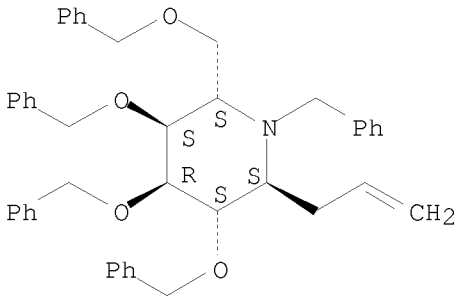
AB A general access to a novel class of sugar α-amino acids I and II (n = 0,1), composed of iminofuranose and iminopyranose residues anomerically linked to the glycinyl group through an alkyl chain, is described. A set of eight compds. was prepared by the same reaction sequence involving as an initial step the Grubbs Ru-carbene-catalyzed cross-metathesis (CM) of various N-Cbz-protected allyl C-iminoglycosides with N-Boc-4-vinyl- and N-Boc-4-allyl-2,2-dimethyloxazolidines. The isolated yields of the CM products (mixts. of E- and Z-alkenes) varied in the range 40-70%. Each mixture was elaborated by first reducing the carbon-carbon double bond using in situ generated diimide and then unveiling the N-Boc glycinyl group [CH(BocNH)CO2H] by oxidative cleavage of the oxazolidine ring by the Jones reagent. All amino acids were characterized as their Me esters. The insertion of a model C-iminoglycosyl-2-aminopentanoic acid into a tripeptide via sequential carboxylic and amino group coupling with L-phenylalanine derivs. was carried out to synthesize glycopeptide III.

IT 860264-31-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of C-iminoglycosyl amino acids and their glycopeptide derivs. via cross-metathesis of C-allyl iminosugars with alkenyl oxazolidines as a key step)

RN 860264-31-9 CAPLUS

CN Piperidine, 3,4,5-tris(phenylmethoxy)-2-[(phenylmethoxy)methyl]-1-(phenylmethyl)-6-(2-propen-1-yl)-, (2S,3S,4R,5S,6S)- (CA INDEX NAME)

Absolute stereochemistry.

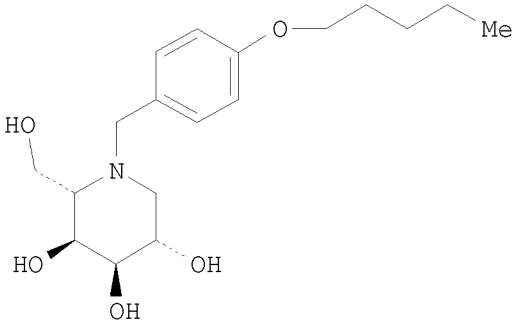


OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)
REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:1127336 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 142:56619
TITLE: Preparation of 2-hydroxymethyl-3,4,5-trihydroxy-1-(4-pentyloxybenzyl)-piperidine as glucosylceramide synthase inhibitor
INVENTOR(S): Orchard, Michael Glen; Scopes, David Ian Carter
PATENT ASSIGNEE(S): Oxford Glycosciences UK Ltd, UK
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111001	A1	20041223	WO 2004-GB2450	20040609
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004247468	A1	20041223	AU 2004-247468	20040609
AU 2004247468	B2	20091119		
CA 2528322	A1	20041223	CA 2004-2528322	20040609
EP 1641755	A1	20060405	EP 2004-736421	20040609
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1805934	A	20060719	CN 2004-80016299	20040609
CN 100422150	C	20081001		
BR 2004011293	A	20060829	BR 2004-11293	20040609
JP 2006527252	T	20061130	JP 2006-516390	20040609
US 20070259918	A1	20071108	US 2007-560383	20070329
PRIORITY APPLN. INFO.:			GB 2003-13677 A	20030613
			WO 2004-GB2450 W	20040609

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 142:56619
GI



I

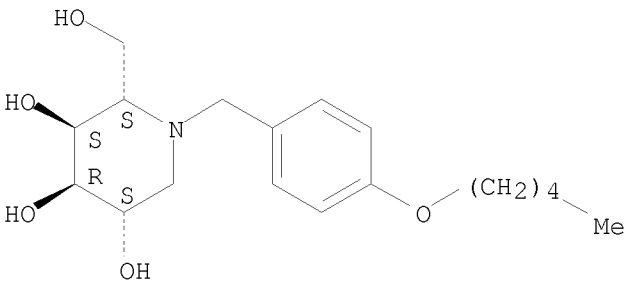
AB Title piperidine imino sugar I , or a pharmaceutically acceptable salt or prodrug thereof, was prepared via condensation of (2S,3S,4R,5S)-2-(hydroxymethyl)-3,4,5-piperidinetriol with 4-(pentyloxy)benzaldehyde and (polystyrylmethyl)trimethylammonium cyanoborohydride and used as an inhibitor of glucosylceramide synthase from human mammary epithelial cells (IC50 = 4.8 μM). The compound of the present invention can also be used in the treatment of cancer in which glycolipid synthesis is abnormal such as brain tumors, neuroblastoma, malignant melanoma, renal adenocarcinoma and multidrug resistant cancers in general (no data). Also claimed, the use title compound in the manufacture of a medicament for use in the treatment of Alzheimer's disease, epilepsy, stroke, Parkinson's disease or spinal injury, rheumatoid arthritis, Crohn's disease, asthma or sepsis (no data).

IT 811419-33-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-hydroxymethyl-3,4,5-trihydroxy-1-(4-pentyloxybenzyl)-piperidine as glucosylceramide synthase inhibitor)

RN 811419-33-7 CAPLUS

CN 3,4,5-Piperidinetriol, 2-(hydroxymethyl)-1-[[4-(pentyloxy)phenyl]methyl]-, (2S,3S,4R,5S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

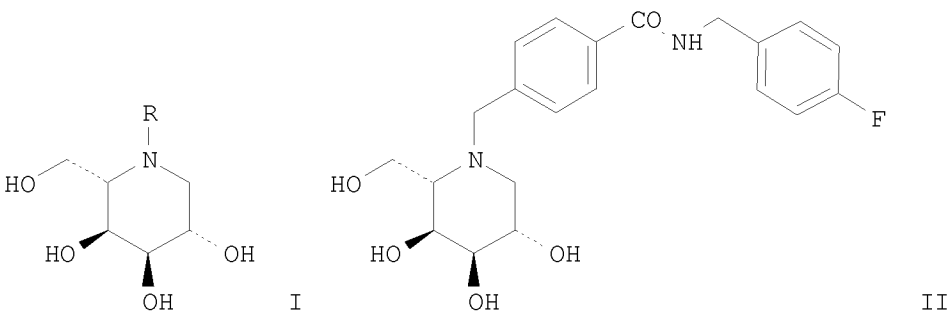
L19 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:60472 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 140:94233
TITLE: Preparation of aza-sugar piperidinetriol derivatives as antiviral and antitumor agents and inhibitors of glycosylceramide synthase
INVENTOR(S): Ali, Mezher Hussein; Orchard, Michael Glen
PATENT ASSIGNEE(S): Oxford Glycosciences (UK) Ltd., UK
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007454	A1	20040122	WO 2003-GB3244	20030717
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2492410	A1	20040122	CA 2003-2492410	20030717
AU 2003248960	A1	20040202	AU 2003-248960	20030717
AU 2003248960	B2	20090625		
EP 1554245	A1	20050720	EP 2003-764031	20030717
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005536506	T	20051202	JP 2004-520913	20030717
US 20060111400	A1	20060525	US 2005-522207	20051027

PRIORITY APPLN. INFO.:

GB 2002-16656	A	20020717
GB 2003-1480	A	20030122
GB 2003-13674	A	20030613
WO 2003-GB3244	W	20030717

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 140:94233
GI



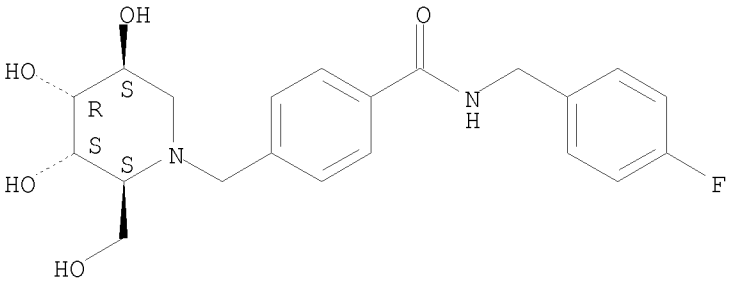
AB Aza-sugar piperidinetriol derivs. I; wherein R is substituted alkylphenyl, alkylpyridiyl, were prepared as inhibitors of glucosylceramide synthase. Thus, II was prepared and tested in vitro as antiviral agent and inhibitor of glycosylceramide synthase (IC50 range = 0.1 to > 100.0 μM).

IT 644960-50-9P 644960-51-0P 644960-52-1P
644960-53-2P 644960-54-3P 644960-55-4P
644960-56-5P 644960-57-6P 644960-58-7P
644960-59-8P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of azasugar piperidinetriol derivs. as antiviral and antitumor agents and inhibitors of glycosylceramide synthase)

RN 644960-50-9 CAPLUS

CN Benzamide, N-[(4-fluorophenyl)methyl]-4-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

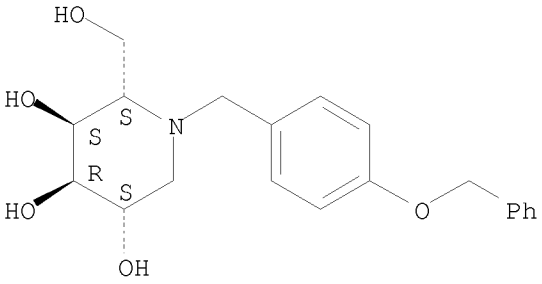
Absolute stereochemistry.



RN 644960-51-0 CAPLUS

CN 3,4,5-Piperidinetriol, 2-(hydroxymethyl)-1-[[4-(phenylmethoxy)phenyl]methyl]-, (2S,3S,4R,5S)- (CA INDEX NAME)

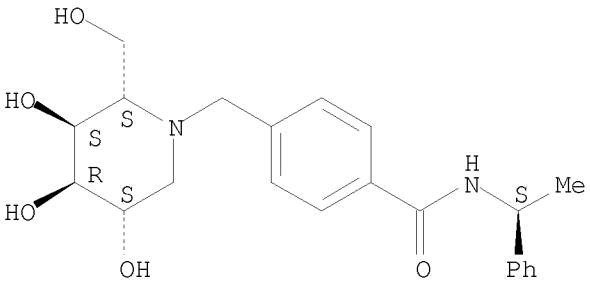
Absolute stereochemistry.



RN 644960-52-1 CAPLUS

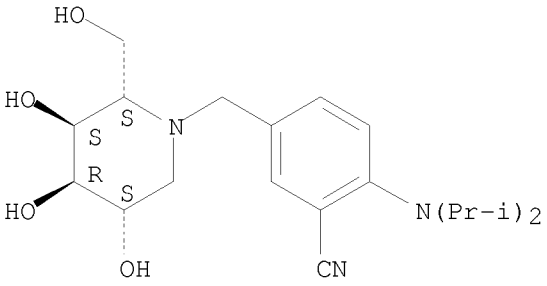
CN Benzamide, N-[(1S)-1-phenylethyl]-4-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



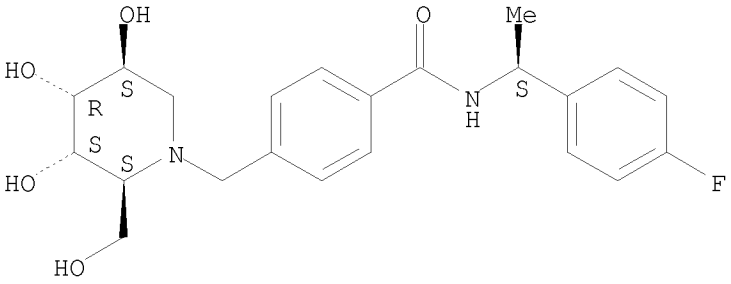
RN 644960-53-2 CAPLUS
CN Benzonitrile, 2-[bis(1-methylethyl)amino]-5-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



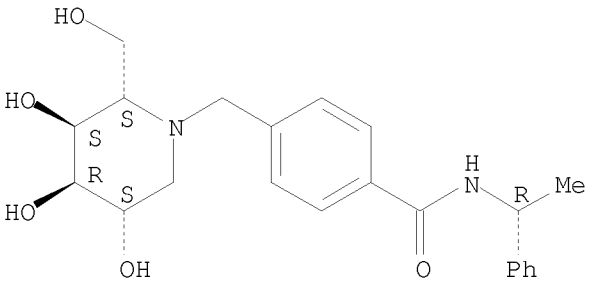
RN 644960-54-3 CAPLUS
CN Benzamide, N-[(1S)-1-(4-fluorophenyl)ethyl]-4-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



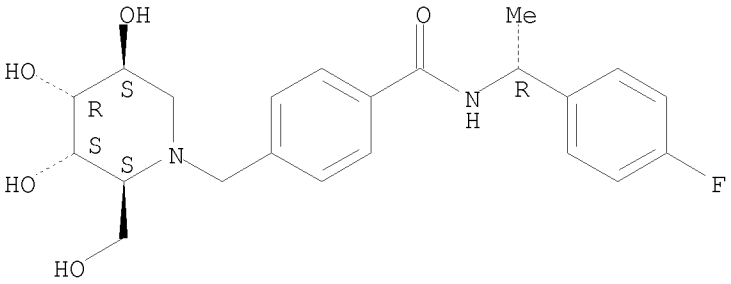
RN 644960-55-4 CAPLUS
CN Benzamide, N-[(1R)-1-phenylethyl]-4-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



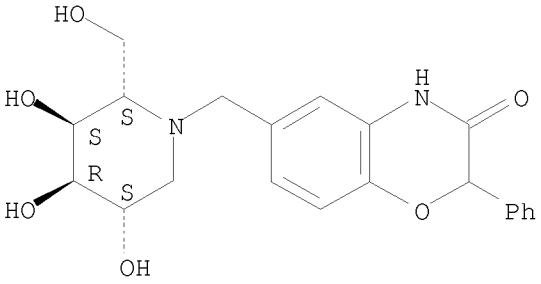
RN 644960-56-5 CAPLUS
CN Benzamide, N-[(1R)-1-(4-fluorophenyl)ethyl]-4-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



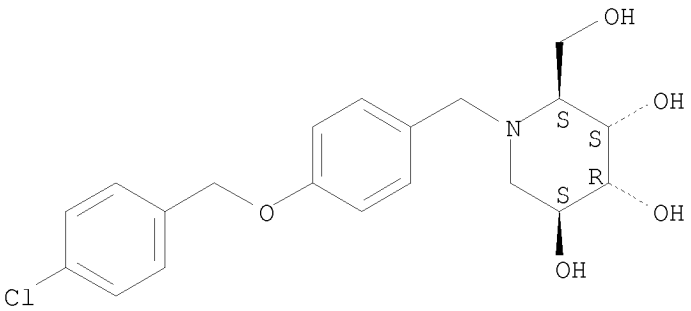
RN 644960-57-6 CAPLUS
CN 2H-1,4-Benzoxazin-3(4H)-one, 2-phenyl-6-[[(2S,3S,4R,5S)-3,4,5-trihydroxy-2-(hydroxymethyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



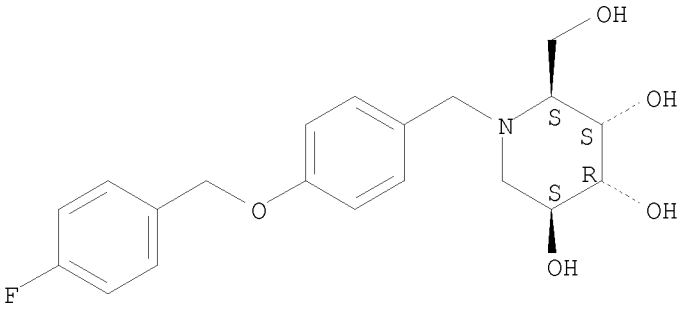
RN 644960-58-7 CAPLUS
CN 3,4,5-Piperidinetriol, 1-[[4-[(4-chlorophenyl)methoxy]phenyl]methyl]-2-(hydroxymethyl)-, (2S,3S,4R,5S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 644960-59-8 CAPLUS
CN 3,4,5-Piperidinetriol, 1-[[4-[(4-fluorophenyl)methoxy]phenyl]methyl]-2-(hydroxymethyl)-, (2S,3S,4R,5S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

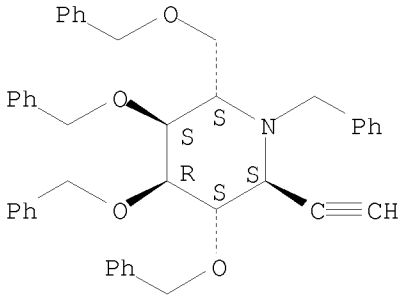
L19 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:421770 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 139:230929
TITLE: A convenient synthesis of iminosugar-C-glycosides via organometallic addition to N-benzyl-N-glycosylhydroxylamines
AUTHOR(S): Dondoni, Alessandro; Perrone, Daniela
CORPORATE SOURCE: Dipartimento di Chimica, Laboratorio di Chimica Organica, Universita di Ferrara, Ferrara, 44100, Italy
SOURCE: Tetrahedron (2003), 59(24), 4261-4273
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:230929
AB N-Benzyl-N-glycosylhydroxylamines were prepared in very good yield via condensation of furanoses and pyranoses with N-benzylhydroxylamine at 110°C for 30 min under solvent-free conditions. These anomeric sugar-hydroxylamines exist in equilibrium with the open-chain nitrone form. In fact upon treatment with various organometallic reagents, the corresponding adducts were obtained with good to high diastereoselectivity. These adducts were converted into

iminosugar-C-glycosides by reductive dehydroxylation and intramol. cyclization.

IT 595560-12-6P 595560-13-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereoselective synthesis of iminosugar-C-glycosides via organometallic addition to N-benzyl-N-glycosylhydroxylamines followed by intramol. cyclization)

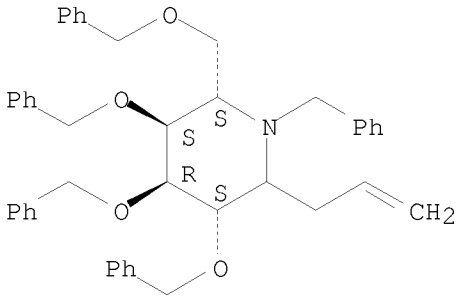
RN 595560-12-6 CAPLUS
CN Piperidine, 2-ethynyl-3,4,5-tris(phenylmethoxy)-6-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, (2S,3S,4R,5S,6S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 595560-13-7 CAPLUS
CN Piperidine, 3,4,5-tris(phenylmethoxy)-2-[(phenylmethoxy)methyl]-1-(phenylmethyl)-6-(2-propen-1-yl)-, (2S,3S,4R,5S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:539660 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 137:93950
TITLE: Preparation of pharmaceutically active aza-sugar piperidine derivatives as inhibitors of galactosidase and glucosylceramide synthase
INVENTOR(S): Butters, Terence D.; Dwek, Raymond A.; Fleet, George; Orchard, Michael Glen; Platt, Frances Mary
PATENT ASSIGNEE(S): Oxford Glycosciences (UK) Ltd., UK; The Chancellor,

SOURCE:	Masters and Scholars of the University of Oxford PCT Int. Appl., 38 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	3

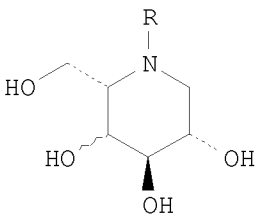
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055498	A1	20020718	WO 2002-GB106	20020111
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2433675	A1	20020718	CA 2002-2433675	20020111
AU 2002219363	A1	20020724	AU 2002-219363	20020111
AU 2002219363	B2	20071101		
EP 1362031	A1	20031119	EP 2002-729458	20020111
EP 1362031	B1	20080319		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002006433	A	20031230	BR 2002-6433	20020111
HU 2003003891	A2	20040329	HU 2003-3891	20020111
HU 2003003891	A3	20100128		
CN 1496351	A	20040512	CN 2002-806226	20020111
CN 1267420	C	20060802		
JP 2004517869	T	20040617	JP 2002-556170	20020111
JP 4313572	B2	20090812		
RU 2279425	C2	20060710	RU 2003-124756	20020111
AT 389635	T	20080415	AT 2002-729458	20020111
PT 1362031	E	20080612	PT 2002-729458	20020111
ES 2304439	T3	20081016	ES 2002-729458	20020111
ZA 2003005118	A	20041001	ZA 2003-5118	20030701
MX 2003006185	A	20041203	MX 2003-6185	20030710
US 20040097551	A1	20040520	US 2003-618165	20030711
KR 879651	B1	20090120	KR 2003-709309	20030711
US 20060074107	A1	20060406	US 2005-196153	20050803

PRIORITY APPLN. INFO.:	GB 2001-889	A	20010112
	WO 2002-GB106	W	20020111
	US 2003-618165	A3	20030711

OTHER SOURCE(S): MARPAT 137:93950

GI



I

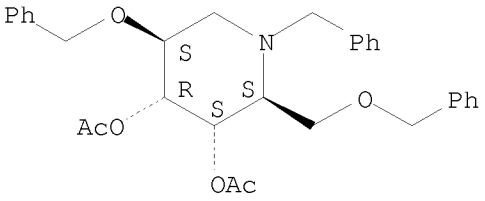
AB Aza-sugar piperidine derivs. I wherein R is C1-16 alkyl, C3-7 cycloalkyl, and optionally interrupted by -O- the oxygen being separated from the ring nitrogen by at least two carbon atoms, or C1-10 alkylaryl where aryl is Ph, pyridyl, thienyl or furyl wherein Ph is optionally substituted by one or more substituents selected from F, Cl, Br, CF3, OCF3, OR1, and C1-6 straight or branched-chain alkyl; and R1 is hydrogen, or C1-6 straight or branched-chain alkyl; represents various substituent groups, were prepared and are useful as inhibitors of galactosidase and glucosylceramide synthase. Thus, (2S,3R,4R,5S)-1-pentyl-2-(hydroxymethyl)-3,4,5-piperidinetriol was prepared and tested as inhibitor of human glucosylceramide synthase (IC50 = 4.0 μM).

IT 441061-93-4
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of pharmaceutically active aza-sugar piperidine derivs. as inhibitors of galactosidase and glucosylceramide synthase)

RN 441061-93-4 CAPLUS

CN 3,4-Piperidinediol, 5-(phenylmethoxy)-2-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, 3,4-diacetate, (2S,3S,4R,5S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2000:498609 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 133:252629
TITLE: A norbornyl route to azasugars: a new synthesis of deoxynojirimycin analogues
AUTHOR(S): Mehta, G.; Mohal, N.
CORPORATE SOURCE: Department of Organic Chemistry, Indian Institute of Science, Bangalore, 560 012, India
SOURCE: Tetrahedron Letters (2000), 41(30), 5741-5745
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:252629

AB A new synthesis of deoxynojirimycin (DNJ) analogs (galacto- and altro-configuration) has been achieved through a functionalized cyclopentene derivative crafted from the norbornyl system, employing double reductive amination as the key step. The new DNJ analogs have been evaluated against various glycosidases and found to be moderate to strong inhibitors.

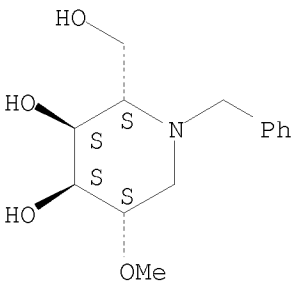
IT 295348-66-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis and glycosidase inhibitory activity of deoxynojirimycin analogs via reductive amination)

RN 295348-66-2 CAPLUS

CN 3,4-Piperidinediol, 2-(hydroxymethyl)-5-methoxy-1-(phenylmethyl)-, hydrochloride (1:1), (2S,3S,4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:166648 CAPLUS <<LOGINID::20100402>>

DOCUMENT NUMBER: 126:264276

ORIGINAL REFERENCE NO.: 126:51189a,51192a

TITLE: Rare and complex saccharides from D-galactose and other milk derived carbohydrates. 7. Double reductive amination of L-arabino-hexos-5-uloses: a diastereoselective approach to 1-deoxy-D-galactostatin derivatives

AUTHOR(S): Barili, Pier Luigi; Berti, Giancarlo; Catelani, Giorgio; D'Andrea, Felicia; De Rensis, Francesco; Puccioni, Leonardo

CORPORATE SOURCE: Dip. Chim. Bioorg., Univ. Pisa, Pisa, I-56126, Italy

SOURCE: Tetrahedron (1997), 53(9), 3407-3416
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

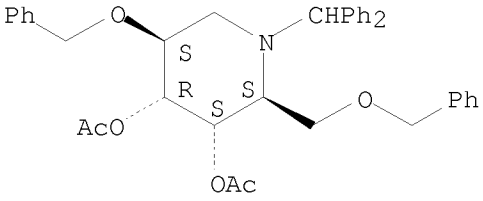
OTHER SOURCE(S): CASREACT 126:264276

AB The double reductive amination of L-arabino-hexos-5-ulose with benzhydrylamine and NaBH3CN takes place in a diastereospecific manner giving in moderate chemical yield (36%) the galactosidase inhibitor 1-deoxy-D-galactostatin. The amino cyclization. of 2,6-di-O-benzyl-L-arabino-hexos-5-ulose is more complicated, giving results dependent on the type of amine: with ammonia or methylamine a mixture of C-5 epimeric 1-deoxyazapyranoses (D-galacto/L-altro ratio ≈ 4:1) is obtained in 45-65% combined yield, while with benzhydrylamine substantial amts. of an acyclic 1-deoxy-1-benzydrylamino-hexitol (10 % yield) is isolated together with the expected 1-deoxy-azasugars of the D-galacto and L-altro series.

IT 188779-12-6P

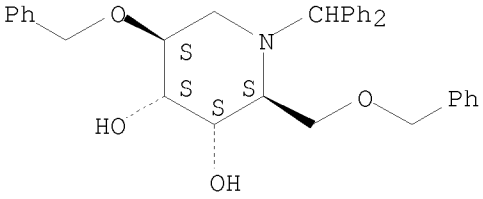
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(diastereoselective approach to deoxygalactostatin derivs.)
RN 188779-12-6 CAPLUS
CN 3,4-Piperidinediol, 1-(diphenylmethyl)-5-(phenylmethoxy)-2-[(phenylmethoxy)methyl]-, 3,4-diacetate, (2S,3S,4R,5S)- (CA INDEX NAME)

Absolute stereochemistry.



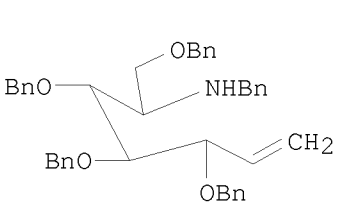
IT 188779-10-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(diastereoselective approach to deoxygalactostatin derivs.)
RN 188779-10-4 CAPLUS
CN 3,4-Piperidinediol, 1-(diphenylmethyl)-5-(phenylmethoxy)-2-[(phenylmethoxy)methyl]-, (2S,3S,4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (22 CITINGS)
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1996:182526 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 124:343893
ORIGINAL REFERENCE NO.: 124:63891a,63894a
TITLE: An efficient synthetic approach to aza-C-glycosyl compounds. Application to the synthesis of an aza-C-disaccharide
AUTHOR(S): Martin, Olivier R.; Liu, Li; Yang, Feng
CORPORATE SOURCE: Dep. Chemistry, State Univ. New York, Binghamton, NY, 13902-6016, USA
SOURCE: Tetrahedron Letters (1996), 37(12), 1991-4
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:343893
GI



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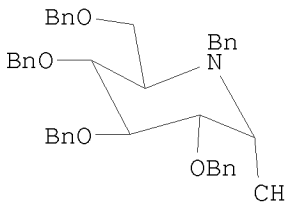

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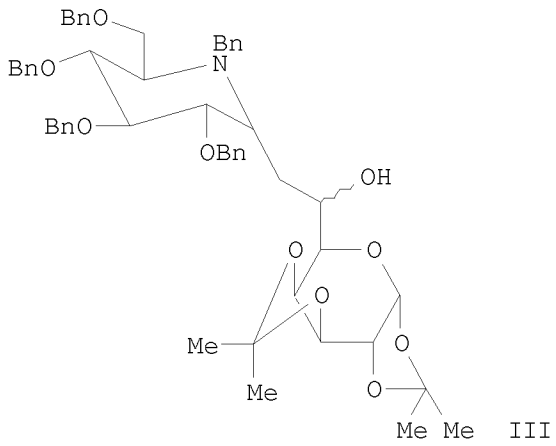


III

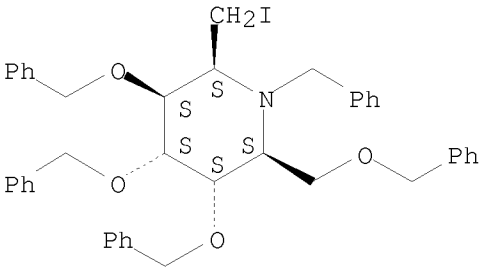
AB The NIS-mediated intramol. cyclocondensation of aminoheptenitols, e.g. I, (prepared in three steps from tetra-O-benzyl-D-hexopyranoses) provided 1,2,6-trideoxy-2,6-imino-l-iodohepitols, e.g. II, highly stereoselectively and in high yield. The "α-D-gluco" epimer II was used in the synthesis of a precursor of an aza-C-disaccharide III and its reaction with tri-Et phosphite was investigated.

IT 176706-84-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of deoxyiminoiodohepitols as synthons of aza-C-disaccharides)

RN 176706-84-6 CAPLUS

CN Piperidine, 2-(iodomethyl)-3,4,5-tris(phenylmethoxy)-6-[(phenylmethoxy)methyl]-1-(phenylmethyl)-, [2S-(2α,3α,4β,5β,6α)]- (9CI) (CA INDEX NAME)

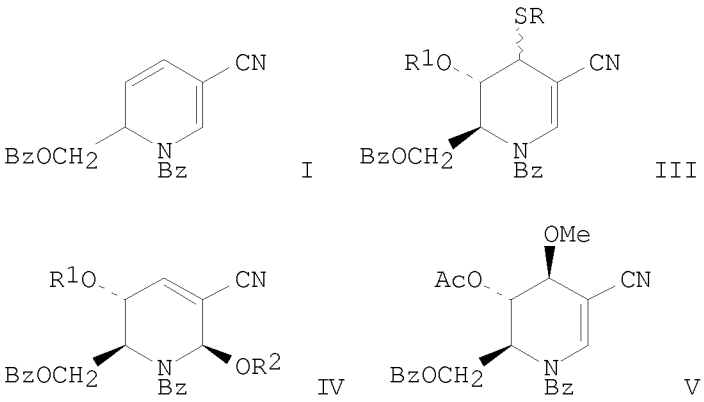
Absolute stereochemistry.



OS.CITING REF COUNT: 57 THERE ARE 57 CAPLUS RECORDS THAT CITE THIS

RECORD (57 CITINGS)

L19 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1979:138117 CAPLUS <<LOGINID::20100402>>
DOCUMENT NUMBER: 90:138117
ORIGINAL REFERENCE NO.: 90:21917a,21920a
TITLE: Synthetic study of amino sugars from pyridines. V. Synthesis of 5-amino-5-deoxypiperidinoses from the singlet oxygen adduct of 1-acyl-1,2-dihydropyridines
AUTHOR(S): Natsume, Mitsutaka; Wada, Moritaka; Ogawa, Masashi
CORPORATE SOURCE: Itsuu Lab., Res. Found., Tokyo, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1978), 26(11), 3364-72
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



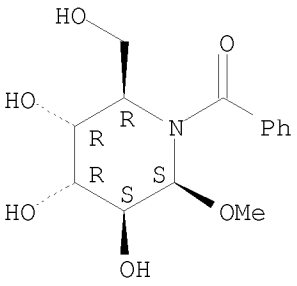
AB Sensitized photooxidn. of 5-cyano-1,2-dihydropyridine derivative I afforded a crystalline and reactive endo-peroxide (II) and S derivs. III (R = Ph, R1 = H, Ac; R = CH2Ph, R1 = H). O derivs. IV (R1 = Me, R2 = H, Ac; R1 = CD3, R2 = Ac) and V were produced in good yield from II. IV (R1 = Me, R2 = Ac) was a good intermediate for production of 4-substituted compds., 1-O-methyl-5-benzamido-5-deoxyallopiperidinose and 1-O-methyl-5-benzamido-5-deoxyaltropiperidinose. Formation of IV and II was a multi-step reaction.

IT 69538-38-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with diethoxypropane)

RN 69538-38-1 CAPLUS

CN Methanone, phenyl[(2R,3R,4R,5S,6S)-3,4,5-trihydroxy-2-(hydroxymethyl)-6-methoxy-1-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

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